



Minnesota Pollution Control Agency

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April 3, 2012

Ms. Tamara Cameron
US Army Corps of Engineers
Regulatory Branch Chief, St. Paul District
180 Fifth St E Ste 700
St. Paul, MN 55101-1678

United States Steel Corporation
Minnesota Ore Operations - Minntac
Box 417
Mt. Iron, Minnesota 55768

RE: Operations – Regulatory (MVP-2010-04976-JCC)
Proposed West Pit Expansion of Minntac Facility
St. Louis County, Minnesota
Section 401 Water Quality Certification

Dear Ms. Cameron and United States Steel Corporation:

This letter is submitted by the Minnesota Pollution Control Agency (MPCA) under authority of Section 401 of the Clean Water Act (CWA) (33 USC 1251 et seq.), Minn. Stat. chs. 115 and 116 and Minn. R. 7001.1400-7001.1470. The MPCA has examined the application and other information furnished by the applicant, United States Steel Corporation (USS), and bases its certification decision upon this and other such information relevant to water quality considerations. USS proposes to discharge dredged and fill material into 75.41 acres of wetlands, which are hydrologically connected to streams that flow to the St. Louis River, in conjunction with the expansion of the USS-Minntac West pit. In addition, USS seeks authorization to retain dredged and fill material already discharged into 5.2 acres of wetlands, without prior authorization, in 2010. The proposed project would enable USS to expand the Minntac West Pit to the southern boundary of the area allowed to be mined under the company's existing Minnesota Department of Natural Resources Permit to Mine. The project is located in the city of Mountain Iron, in Sections 1, 2, 7, 8 and 9 of Township, 58N, Range 18W; and in Sections 11 and 12 of Township 58N, Range 19W, St. Louis County, Minnesota. While the Minntac mine is located on the drainage divide between the Rainy River Major Watershed and the St. Louis River Major watersheds, the proposed West Pit expansion lies entirely within the St. Louis River Major Watershed of the Lake Superior Basin.

Proposed Wetland Impacts and Compensatory Mitigation

As further detailed in the application and associated USS correspondence to the MPCA, the proposed project's 75.41 acres of permanent wetland impacts would consist of the following: 3.79 acres of Fresh (Wet) Meadow/Sedge Meadow (Type 2); 31.16 acres of Alder Thicket/Shrub Carr (Type 6); and 40.46 acres of Hardwood Swamp (Type 7). The 5.2 acres of permanent wetland impacts that occurred in 2010 consist of the following: 1.44 acres of Fresh (Wet) Meadow/Sedge Meadow (Type 2); 2.42 acres of Alder Thicket/Shrub Carr (Type 6); and 1.34 acres of Hardwood Swamp (Type 7). The majority of the proposed wetland impacts are within the headwaters of the West Two River Watershed (a minor watershed within the St. Louis River Major Watershed).

As compensatory mitigation for the project's permanent wetland impacts, USS proposes a two-tiered approach: (A) the 5.2 acres of unauthorized wetland impacts that occurred in 2010 would be mitigated by debiting credits from the approved USS Thompson Wetland Bank in Aitkin County at a ratio of 1.5:1 (8.9 wetland credits currently remain in this bank); and (B) USS intends to demonstrate that their planned Palisades Wetland Bank in Aitkin County, a previously-drained wetland area currently used for crop production, can be used to compensate for the proposed 75.41 acres of wetland impacts. This site is located outside of the St. Louis River Major Watershed near the city of Palisade in Sections 27, 28, 32, 33 and 34 of T. 49 N., R. 24 W; and Section 3, T. 48 N., R. 24 W., in Aitkin County, Minnesota. If successful, preliminary

reports estimate that up to 1,400 acres of wetlands may be restored at this location. USS has started the required process for the Palisade Wetland Bank to become a federal and state approved wetland mitigation bank; however, the planned bank has not yet been approved. Similarly, USS is in the process of revising their project-specific mitigation plan that, when finalized, needs to demonstrate the proposed permanent 75.41 acres of wetland impacts can be adequately compensated for at the planned Palisade Wetland Bank. In USS correspondence to the MPCA, dated March 15, 2012, it is stated that potential compensatory mitigation sites within the same watershed and basin were explored before focusing on developing the Palisade Wetland Bank; however, none were large enough to accommodate the amount of wetland credits required for the West Pit Progression.

Potential Secondary Impacts to Surface Waters

As stated above, this project will extend the West Pit to the southern boundary of the company's Minnesota Department of Natural Resources (MDNR) Permit to Mine. The majority of the wetlands that will be impacted are hydrologically connected to, and within headwaters of, the West Two River, which flows to the St. Louis River approximately 15 miles south of the West Pit. According to the third-party, July 2011, Environmental Assessment (EA) for this project, prepared for the U.S. Army Corps of Engineers permitting process, the proposed project may result in secondary impacts to surface waters, due to the alteration of the watershed areas and stream hydrology. The EA also indicates that the West Pit expansion would reduce the West Two River Minor Watershed by approximately 407 acres (a reduction of 4.8 per cent).

As communicated with USS staff during a site inspection held on Wednesday, March 21, 2012, and in subsequent discussions, the MPCA is concerned with the potential secondary impacts the West Pit expansion may have to the West Two River and the St. Louis River. In particular, it appears the project may reduce the overall hydrology within the West Two River watershed, which may result in lower flow, decreased water quality, and the loss of aquatic habitat and overall function of the West Two River itself. Further, both the West Two River Reservoir, to which the West Two River flows approximately two miles south of the West Pit expansion, and the section of West Two River immediately downstream from the reservoir, are identified as impaired for aquatic life on the draft 2012 CWA 303 (d) list of impaired waters. Consequently, as a condition of this MPCA Section 401 Water Quality Certification, USS will be required to develop and propose a Stream Monitoring Plan that, upon implementation, will serve as a basis for determining whether the project is causing secondary impacts to the West Two River as a result of the West Pit expansion.

MPCA 401 Certification Determination

The MPCA certifies the referenced project because there is reasonable assurance that the activity will be conducted in a manner that will not violate applicable water quality standards, provided the following conditions are complied with:

1. As compensatory mitigation for the non-permitted, 5.2 acres of permanent wetland impacts that occurred in 2010, and to comply with Minn. R. 7050.0186, USS shall debit credits from the approved USS Thompson Wetland Bank in Aitkin County at a ratio of 1.5:1. USS shall provide the MPCA written verification that the wetland credits have been withdrawn, prior to impacting any of the additional 75.41 acres of wetlands that will occur during the West Pit Expansion.
2. As compensatory mitigation for the project's 75.41 acres of permanent wetland impacts, USS shall submit to the MPCA a proposed comprehensive mitigation plan that, upon implementation, will provide sufficient compensatory mitigation for the wetland impacts, as required by Minn. R. ch. 7050.0186. The plan shall use the Eggers and Reed wetland classification system, and it must contain a proposed monitoring and tracking plan for determining the progress of the proposed mitigation. A final version of the comprehensive wetland mitigation plan must be approved by the MPCA before any of these wetland impacts are authorized to occur.
3. Prior to commencing any construction operations, the wetland areas that are to remain undisturbed shall be clearly marked in the field so that boundaries are visible to equipment operators. Sediment must

remain on the project site and cannot be deposited into adjacent wetlands or water bodies that are not authorized to be impacted.

4. Prior to commencing the West Pit expansion activities, and throughout the duration of the project, USS shall monitor for potential secondary impacts to the West Two River. Specifically, USS shall develop and propose a *Flow-Stage and Water Chemistry Monitoring Plan* (Monitoring Plan) to the MPCA, which, at a minimum, must identify the following:
 - a. A monitoring location of the West Two River in an appropriate area near the old US Hwy 169 culvert.
 - b. The methodology that will be used by qualified persons to monitor the flow-stage of the West Two River during the open water/ice-free seasons. The monitoring must occur frequently enough to characterize general flow conditions. Flow -stage monitoring must also include regional precipitation data for the monitoring period to provide context.
 - c. The methodology that will be used by qualified persons to monitor the water chemistry of the West Two River during the open water/ice-free seasons. The monitoring must consist of weekly field measurements and monthly water sampling for lab analysis during the monitoring period, and it needs to include the following:
 - i. Weekly Field Measurements.
 - The pH, temperature, conductivity and dissolved oxygen need to be measured weekly using a multi-meter/probe consistent with the MPCA Major Watershed Load Monitoring SOP (<http://www.pca.state.mn.us/index.php/view-document.html?gid=16174>);
 - Transparency needs to be measured weekly using a 100cm Secchi Tube consistent with the MPCA Citizen Stream Monitoring Program (<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/streams-and-rivers/citizen-stream-monitoring-program/citizen-stream-monitoring-program-introduces-secchi-tube.html>);
 - ii. Monthly Water Sampling. Monthly Water Samples need to be analyzed for:
 - Total suspended solids (TSS), suspended volatile solids (SVS), chloride, and sulfate;
 - Metals listed in the following MN Department of Health analysis guides:
 - ICP GW Spec Scan 5 (Reference Method EPA 200.7):
http://www.health.state.mn.us/divs/phl/environmental/handbook/internet/an_reports/703nonpotablewaterepa2007.html
 - ICP-MS Scan 18 (Reference Method SW 6020):
http://www.health.state.mn.us/divs/phl/environmental/handbook/internet/an_reports/765nonpotablewatersw6020.html

If stream flow is absent on a scheduled monitoring day, water chemistry monitoring will not be required.

- d. An annual report, which will explain the results of the West Two River Monitoring, including an interpretation of whether the West Pit expansion is causing secondary impacts to the West Two River, will need to be prepared and submitted to the MPCA no later than 30 days after the end of each calendar year. The annual report, which shall contain supporting data, tables, figures, etc., to substantiate conclusions reached within it, shall be submitted to the MPCA, ATTN: Section 401 Certification Program, 520 Lafayette Road N., St. Paul, MN, 55155-4194.

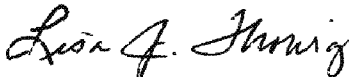
The West Two River Monitoring Plan shall be submitted to the MPCA for approval by no later than May 7, 2012. USS is not authorized to impact any of the 75.41 acres of wetlands associated with the West Pit Expansion until the MPCA has approved the Monitoring Plan. Upon receipt of the MPCA's approval, USS shall then implement the plan. The Annual report will be reviewed by MPCA staff to determine if adjustments to the West Two River Monitoring Plan may be warranted.

5. If the monitoring required in Condition 4, above, determines that detrimental impacts are being caused to the West Two River by the West Pit expansion activities, USS shall provide corrective measures and/or additional compensatory mitigation for these impacts as determined by the MPCA.
6. USS shall submit to the MPCA copies of the same Permit-to-Mine Annual Report and annual Operating Plan that are required to be submitted to the MDNR no later than 30 days after the end of each calendar year. The annual report shall include a tabulation of wetland mitigation that was constructed by May 1 of that year and wetland impacts that were completed by October 1 of that year. The reports shall be submitted to the MPCA, ATTN: Section 401 Certification Program, 520 Lafayette Road N., St. Paul, MN 55155-4194.
7. USS is responsible for informing all persons who are involved with this project's construction activities of the need to comply with all conditions of this 401 Certification.
8. USS shall inform the MPCA of any additional water quality impacts this project may have, before they occur, to determine if further review or authorization is required. This includes any additional fill, excavation, dredging, additional structures and temporary impacts not shown in the final plans or expressly authorized by the USACE Section 404 permit or the MPCA Section 401 Water Quality Certification.

Pursuant to Minn. R. 7001.1450, failure to comply with any of the conditions above may result in the MPCA invalidating or revoking this 401 Certification. A copy of the certification should therefore be posted at the work site, together with a copy of all other required regulatory authorizations.

This certification includes and incorporates by reference the general conditions of Minn. R. 7001.0150, subp. 3. This action does not exempt USS from the responsibility of complying with all applicable local, state, and federal requirements, nor does it grant any right to violate personal or property rights. If you have any questions on this certification, please contact Kevin Molloy at 651-757-2577.

Sincerely,



for David Richfield
Supervisor, Water & Land Rules & Special Projects Unit
Policy, Local Government Assistance and Solid Waste Section
Municipal Division

DR/KM/jlr

cc: Peter Swenson, USEPA
Tony Sullins, USFWS
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